Work Order ID 114277

114277

Page 1

March-04-14 3:	00:06 PM			•		4/11						
Revision ID:	D3391-023 Mid Tube Asse	embly	. ,		Accept	*N90	0040	100)* ፡	Setup Star		S1* S2*
Start Date: Required Date: Reference:	07/03/2014 07/03/2014	Start Qt Req'd Q	•	*1 *1	* *	Cust Iter Custome						,
Approvals:	Process Pla	n: At		Date: 🖳 🔾	3-05 Tooling: SPC (Y/N):	:	Date:	-	I	Run Star Sto _l	^I V I	R1*
Sequence ID/ Work Center II		Operatio Descripti			Set Up/ Run Hour	Tool ID		Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revi	ision Nbr			•		•					
D3391	I			-			*					
100 *100 Skidtubes		Skidtubes	Memo		0.00				•		· <u>.</u>	
Skidtubes			1-Cut tube 2-Drill pilo saddle hole	on one side only as	er Dwg D3391 6 (Do not drill "B" holes) an	•				J		
·					xing Ridge as per Dwg D33 vd & Aft end of skidtube as	'		> &	3E14-0	6-24		
• · · · · · · · · · · · · · · · · · · ·		·	paint mark	er,	arplate Jig DT8217 Identify 3-19-20 FROM FWD END	•						
			(10 holes) a 9-Open we (20 holes) a	as per Dwg D3391 arplate holes of D33 as per Dwg D3391	91-023 assembly detail section of the section of th	ion H-H to Ø0.297"						v

DQA:		. Date:			WORK ORDER NON			D. 444105 / 115					`	DART.
QA Closed:		Date:			WORK ORDER NON	-C(JNFO	RMANCE / UP		Work	Order ur	odate only	\neg	AEROSPACE
Work Orde	r•	•			DISPOSITION		·		AGAINST I	DEPA	RTMENT,	/PROCESS		
WOIK OIGE	'				Rework	1		Skid-tube	Crosstube	\neg		Water Jet	\neg	Engineering
Part N	o				Scrap			Machining	Small Fab			d. Eng. Coor.		Engineering Quality Quality
NCR N	o	ą.			Use-as-is Suspected Unapproved		Therr	noforming Large Fab	Finishing Composite		Rec/Stor	re/Packaging Supplier		Other
Root	·			Desci	ription of work order update		nitial	Actio	on		Sign &		\top	
Cause	Date	Step	Qty	_	or non-conformance	Ch	ief Eng	Descri	ption		Date	Verification	1	QC Inspector
Design														
Doc/Data														
Equip/Tooling														
Handling/Pre												ļ		
Material [!	l		·
Operator														
Offset/Setup														
Process		1									,			
Supplier														
Training										-				
Transport													ĺ	i
Unapproved										- 1		1		
•	•					FAI	ULT CA	TEGORY						
Landin	g Gear				General		,		_			_		
	Bending				Bend		Folio/f	Program		Οι	ıtside Dim	ensions	F	ressure/Forced
	Centre No	ot Concei	ntric		BOM/Route		Grain			Ov	er/Under	tolerance		Set-up
	Cracks				Broken/Damage/Defect		Hardwa	are		Pa	rt Incorrec	cí [emperature/Cure
	Crimp/Kir	nk/Ripple	/Wave		Burrs		Inspect	ion Incomplete/Und	qualified	Pa	rt Lost/Mi	ssing	v	Veld ´
	Cuffs				Contamination	Г	Instruc	tions Incomplete/Ui	nclear	Pa	rt Moved		v	Vrong Stock Pulled
Γ	Crushing				Countersink		Misali	gned/off center	Ţ	Po	sitioned V	Vrong		•
Ţ	Heat Trea	it			Cut Too Short		Mislab	eled	Ī	Po	wer Loss/	Surge]c	Other
	Inspection	n Strip in	Tube		Drawing		Misrea	d	-					
Ī	Marks/Ch	atter			Drill Holes		Off-set							
, [Turning S	equence			Finish		Out of	Calibration						
<u> </u>	¬ Wave/Тw	ist in Tub	oe .		Fit/Function		Out of	Seguence						

at aft end.

*11*4*277* Page 2 March-04-14 3:00:06 PM Item ID: D3391-023 Accept *N900040100* Setup Start **Revision ID: Item Name:** Mid Tube Assembly Start Date: 07/03/2014 Start Oty: 1.00 **Cust Item ID: Required Date:** 07/03/2014 **Req'd Qty:** 1.00 **Customer:** Reference: Start Run Process Plan: Date: Tooling: Approvals: Date: Stop Date: SPC (Y/N): Date: Operation Tool ID Sequence ID/ Tool # Plan Reject Set Up/ Accept Reject Insp. **Work Center ID Description** Number Stamp **Run Hours** Qty Qty 36-14-06-24 10-Open .375" holes to .438" ***do not open fwd saddle holes*** 11-Locate D3391-021 in D3391-023 at 9.00" (see view z-2) 12- Transfer drill one fwd saddle hole only to .188" dia, transfer drill all remaining fwd saddle holes using DT 8149 locating from previus drill .188" dia hole, using t-pins and clicos to ensure perfect allingment, open up oreviusly tranfer drilled pilot holes in D3391-023/-021 to 0.438" dia. in D3391-02 D3391-021 BATCH: 13- Using DT8217, locating from two previously drilled holes, drill remaining wearplate holes into D3391-021. 14- Locating from two fwd wearplate holes in D3391-023 drill remaining 6 wearplte holes in D3391-021 using DT8937 15- Open 10 wearplate holes in D3391-021 to 0.297" dia. 16- insert D3391-021 into D3391-23 17- insert T-pins into first and third fwd saddle holes 18- ON FIRST SIDE ONLY drill out 2nd and forth fwd saddles holes to 0.500" as per 19- ON 2ND SIDE ONLY ream out 2nd and forth saddle hole to 0.499". 20-Deburr and blow out all chips from inside tube, scribe batch # in D3391-023

DQA:		Date:				•							Z_{3} \wedge \square T
					WORK ORDER NON	I-C	ONFO	RMANCE / UPDA	TE				AEROSPACE
QA Closed:		Date:	•						W	ork Order up	date only		
Work Order:					DISPOSITION			A	GAINST DE	PARTMENT	PROCESS		
				-	Rework	7		Skid-tube Cr	osstube	· ·	Water Jet		Engineering
Part No.					Scrap	1	·		mall Fab	Pro	d. Eng. Coor.		Quality
	-			_	Use-as-is	1	Thern	moforming F	inishing	1	e/Packaging		Other
NCR No.					Suspected Unapproved]		Large Fab Cor	mposite		Supplier		
Root	1	·		Docc	ription of work order update		Initial	Action	·	Cian 9.			
Cause	Date	Step	Qt <u>y</u>	Desc	or non-conformance	1	nief Eng	ł	n	Sign & Date	Verification	<u>,</u>	QC Inspector
Design	Date	Step	Qty.		·	1	ner Ling	Description		Date	Vernication	-	QC IIISPECTOI
Doc/Data													
Equip/Tooling	1												
Handling/Pre	-												
Material	1												
Operator	1												
Offset/Setup	1												
Process		·											
Supplier													
Training													
Transport												į	·
Unapproved	<u> </u>	·								<u></u>			* 1.50 miles
						FA	ULT CAT	TEGORY					*
Landing	7			_	General		1 .		 	1			l .
· <u> </u>	Bending			\perp	Bend	<u> </u>	4	Program	_	Outside Dim			Pressure/Forced
_	Centre N	ot Concer	ntric	<u> </u>	BOM/Route	<u></u>	Grain			Over/Under			Set-up
,]-	Cracks			-	Broken/Damage/Defect	\vdash	Hardwa		<u> </u>	Part Incorred		\dashv	Temperature/Cure
, <u> </u>	⊣ :	nk/Ripple	/Wave	-	Burrs	\vdash	1 `	ion Incomplete/Unquali		Part Lost/Mi	ssing	-	Weld
	Cuffs			-	Contamination	\vdash	-∤	tions Incomplete/Unclea		Part Moved	I		Wrong Stock Pulled
	Crushing			\vdash	Countersink	\vdash	-	gned/off center		Positioned W			OUL .
	Heat Trea		- 1	\vdash	Cut Too Short	\vdash	Mislabe			Power Loss/:	surge		Other
. —	Inspectio	•	rube	-	Drawing	\vdash	Misread						
	Marks/Ch			\vdash	Drill Holes	\vdash	Off-set						
	Turning S			-	Finish		4	Calibration					
l.	[wave/fw	ist in Tub	e		Fit/Function		Jout of S	Sequence					

Work Order ID 114277 *114277* Page 3 March-04-14 3:00:06 PM Item ID: D3391-023 Accept *N900040100* Setup Start **Revision ID:** Item Name: Mid Tube Assembly **Start Date:** 07/03/2014 Start Oty: 1.00 **Cust Item ID: Required Date:** 07/03/2014 **Req'd Qty:** 1.00 *1* **Customer:** Reference: Run Start Process Plan: Date: Tooling: Approvals: Date: Stop Date: SPC (Y/N): Date: Sequence ID/ Operation Set Up/ **Tool ID** Tool # Plan Reject Accept Reject Insp. Work Center ID Number Stamp Description **Run Hours** Code Qty Qty 110 QC5- Inspect part completeness to step on W/O *110* QC Memo Quality Control 120 Chemical Conversion Coat per QSI005 4.1 0.00 14-6-25 *120* HandFinish Memo Hand Pinishing 130 QC7-Inspect Chemical Conversion Coat 0.00 1 0 14-06-25 *120* QC 0.00 Memo

Quality Control

DQA:			Date:							, W	in the state of th		•	
						WORK ORDER NON	I-CO	ONFO	RMANCE / L	JPDATE	S.,	_		AEROSPACE
QA Closed:			Date:							N.	ork Order up	odate only		
Work Orde	er:					DISPOSITION				AGAINST D	EPARTMENT	/PROCESS		Control of the second
Part N					_	Rework Scrap Use-as-is Suspected Unapproved			Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier		Engineering Quality Other
Root			*		Desc	ription of work order update	П	Initial	A	ction	Sign &			
Cause		Date	Step	Qty		or non-conformance		nief Eng	Des	cription	Date	Verification	า	QC Inspector
Design Doc/Data Equip/Tooling Handling/Pre Material Operator Offset/Setup Process Supplier Training Transport Unapproved														
							FA	ULT CAT	regory					-
Landi		Bending Centre No Cracks Crimp/Kir Cuffs Crushing Heat Trea Inspection Marks/Ch	nk/Ripple nt n Strip in	/Wave		General Bend BOM/Route Broken/Damage/Defect Burrs Contamination Countersink Cut Too Short Drawing Drill Holes		Grain Hardwa Inspecti Instruct	ion Incomplete/U cions Incomplete, gned/off center eled d	/Unclear	Outside Dim Over/Under Part Incorred Part Lost/Mi Part Moved Positioned V Power Loss/	tolerance ct ssing Vrong		Pressure/Forced Set-up Temperature/Cure Weld Wrong Stock Pulled Other
	_	Turning S	equence			Finish		Out of (Calibration					
	l	Wave/Tw	ist in Tub	e		Fit/Function		Out of S	Sequence					

114277

Page 4

March-04-14 3:00:06 PM **Item ID:** D3391-023 Accept *N900040100* Setup Start **Revision ID:** Stop Item Name: Mid Tube Assembly *1* Start Date: 07/03/2014 Start Qty: 1.00 **Cust Item ID:** Req'd Qty: 1.00 **Required Date:** 07/03/2014 *1* **Customer:** Reference: Run Start Process Plan: **Tooling: Approvals:** Date: Date: Stop OC: Date: SPC (Y/N): Date: Sequence ID/ Tool ID Tool # Plan Operation Reject Set Up/ Accept Reject Insp. **Work Center ID** Description **Run Hours** Code Qty Qty Number Stamp 140 0.00 Skidtubes *140* Skidtubes 0.00 Memo 14-6-25 Skidtubes 1-Open float bag holes as per dwg 2-C'sink float bag holes as per dwg 3- Prepare tube for welding 4-Bond web in place as per Dwg D3391 & QSI 015. Adhere for 12 hours) A/R Sikaflex exp: 14-11-20 batch#: 129457 NOTE: ENSURE WEB IS INSERTED IN AFT END OF TUBE 150 QC5- Inspect part completeness to step on W/O 0.00 *150* QC 0.00 Memo **Quality Control**

DQA:		_ Date:				_			_		•		RT
QA Closed:		Date:			WORK ORDER NON-	-CC	ONFO	RMANCE / UPDATI		ork Order up	date only	AEROS	PACE
Work Orde	or•				DISPOSITION			AGA	AINST DE	PARTMENT,	PROCESS		
WOIK OIG			· · · · · · · · · · · · · · · · · · ·		Rework	ıl		Skid-tube Cross	stube	1	Water Jet	Engineering	. 🗀
Part N	In				Scrap			—	ıll Fab	Pro	d. Eng. Coor.	Quality	\mathbf{H}
rurer					Use-as-is			⊸ ĭ—i	ishing		e/Packaging	Other	
NCR N	io.				Suspected Unapproved		1110111	~ —	oosite	1100/3101	Supplier	7	ˈ
						'						1	
Root				Desci	ription of work order update	Ī	nitial	Action		Sign &			
Cause	Date	Step	Qty		or non-conformance	Ch	ief Eng	Description		Date	Verification	QC Inspec	ctor
Design													
Doc/Data													
Equip/Tooling								·	.	ing Deg.	- green	دا	. •
Handling/Pre								نه ≁ين'	~	3*			
Material								,		,			
Operator													. **
Offset/Setup													<i>(</i>
Process					·								
Supplier													
Training	_	1											,
Transport	_								·			. ~	
Unapproved								1.375					
						FAL	ULT CAT	TEGORY			. >r		
Landir F	ng Gear			_	General		1		_	1 .		- .	
.	Bending	_			Bend	\vdash	1	rogram		Outside Dim	<u> </u>	Pressure/Force	ed
	Centre N	ot Conce	ntric		BOM/Route	\vdash	Grain		<u> </u>	Over/Under		Set-up	_
	Cracks		4	\vdash	Broken/Damage/Defect	\vdash	Hardwa			Part Incorred	⊢	Temperature/0	Cure
	Crimp/Ki	nk/Ripple	/Wave	<u> </u>	Burrs	\vdash	1 '	ion Incomplete/Unqualified		Part Lost/Mis	ssing	Weld	
-	Cuffs			<u> </u>	Contamination	\vdash	4	ions Incomplete/Unclear		Part Moved	<u> </u>	Wrong Stock P	ulled
	Crushing			-	Countersink	\vdash	4	ned/off center	<u> </u>	Positioned W		Joshan	
	Heat Trea		T., b -	\vdash	Cut Too Short	\vdash	Mislabe		L	Power Loss/S	ourge	Other	
}	Inspectio	*	rupe		Drawing	\vdash	Misread						
}	Marks/Cl			-	Drill Holes	\vdash	Off-set				CA NO.		
}	Turning S Wave/Tw				Finish Fit/Function	-	1	Calibration					
I	[vvave/1W	vist in Tuk	JE		priction	l	lont of 2	Sequence					

Work Order ID 114277 *114277* Page 5 March-04-14 3:00:06 PM Item ID: D3391-023 Accept *N900040100* Setup Start **Revision ID:** Stop **Item Name:** Mid Tube Assembly *1* Start Date: 07/03/2014 Start Qty: 1.00 **Cust Item ID:** Required Date: 07/03/2014 Req'd Qty: 1.00 *1* **Customer:** Reference: Start Run Process Plan: Date: **Tooling: Approvals:** Date: Stop Date: _____ SPC (Y/N): OC: Date: Tool ID Tool # Plan Sequence ID/ Operation Accept Reject Set Up/ Reject Insp. Work Center ID **Description** Code Qty Qty Number Stamp **Run Hours** 160 0.00 Skidtubes *160* Skidtubes Memo 0.00

1-Weld crossbolt spacer as per dwg D3391 & QSI 004 A/Rm129285 > BE14-06-240.00 Skidtubes DAS 170 QC10- Inspect visual per QSI004- ground welds 16 *170* 9-89 14/06/26_ OC 0.00 Memo Quality Control

180

120

QC

QC5- Inspect part completeness to step on W/O

0.00

Memo

14/06/26

0.00

DAS

16 9-89

Quality Control

NCR No. Use-as-is Suspected Unapproved Large Fab Composite Supplier	ART
Part No.	EROSPACE
Part No. Scrap Scrap Skid-tube Crosstube Prod. Eng. Coor. Q. Prod. Eng. Coor. Prod. Eng. Coor. Q. Prod. Eng. Coor. Q. Prod. Eng. Coor. Q. Prod. Eng. Coor. Q. Prod. Eng. Coor. Prod. Eng. Coor	
Root Cause Date Step Qty Description of work order update Chief Eng Description Date Verification QC I Design Description Date Description Date Verification QC I Description Date Description Date Description Date Description Date Description QC I Description Date Description Date Description Date Description Date Date Date Date Date Date Date Date	ering uality Other
Cause Date Step Qty or non-conformance Chief Eng Description Date Verification QC I Design	
Design	nspector
FAULT CATEGORY Centre Not Concentric BOM/Route Broken/Damage/Defect Grain Over/Under tolerance Set-up Crump/Kink/Ripple/Wave Burrs Contamination Contersink Crushing Countersink Counter	ispecto:
Handling/Pre Material Coperator Offset/Setup Correcess Compeller Fraining Compensed Co	
Adaterial Coperator Offset/Setup Coperator Coffset/Setup Coperator Coffset/Setup Coperator Coffset/Setup Coperator C	
Coperator	į
Offset/Setup Process Supplier Fraining Fraining Fransport Unapproved FAULT CATEGORY Landing Gear General Bending Centre Not Concentric Cracks BOM/Route Broken/Damage/Defect Hardware Crimp/Kink/Ripple/Wave Cuffs Cuffs Cuffs Crushing Countersink Folio/Program Outside Dimensions Pressure Grain Over/Under tolerance Fet-up Tempera Dispection Incomplete/Unqualified Part Lost/Missing Weld Wrong St Wrong St Wrong St	
FAULT CATEGORY Landing Gear Bending Centre Not Concentric Cracks Broken/Damage/Defect Broken/Damage/Defect Crimp/Kink/Ripple/Wave Cuffs Cuffs Crushing Countersink Countersink Grain Bend Grain Cover/Under tolerance Broken/Damage/Defect Inspection Incomplete/Unqualified Date of the Note of the	
FAULT CATEGORY Landing Gear General Bending Gentre Not Concentric BOM/Route Grain Over/Under tolerance Set-up Cracks Broken/Damage/Defect Hardware Part Incorrect Tempera Crimp/Kink/Ripple/Wave Cuffs Contamination Instructions Incomplete/Unqualified Part Lost/Missing Weld Crushing Countersink Misaligned/off center Positioned Wrong	
FAULT CATEGORY Landing Gear Bending Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Cuffs Cuffs Crushing Crushing Countersink FAULT CATEGORY FOlio/Program Outside Dimensions Pressure, Grain Over/Under tolerance Set-up Hardware Inspection Incomplete/Unqualified Instructions Incomplete/Unclear Part Moved Wrong St	,
FAULT CATEGORY Landing Gear General Bending Bend Folio/Program Outside Dimensions Pressure, Centre Not Concentric BOM/Route Grain Over/Under tolerance Set-up Cracks Broken/Damage/Defect Hardware Part Incorrect Tempera Crimp/Kink/Ripple/Wave Burrs Inspection Incomplete/Unqualified Part Lost/Missing Weld Cuffs Contamination Instructions Incomplete/Unclear Positioned Wrong St	ļ
FAULT CATEGORY Folio/Program Outside Dimensions Pressure, Grain Over/Under tolerance Set-up Fault Category Fa	
Centre Not Concentric Broken/Damage/Defect Burrs Crimp/Kink/Ripple/Wave Cuffs Crushing Countersink Countersink Countersink Countersink Countersink Countersink Countersink Countersink Catebook Countersink Catebook Countersink Catebook Countersink Catebook Catebook Catebook Catebook Catebook Catebook Countersink Catebook Catebo	
Landing Gear Bending Centre Not Concentric Cracks Crimp/Kink/Ripple/Wave Cuffs Crushing Crushing General Folio/Program Grain Folio/Program Outside Dimensions Pressure Grain Folio/Program Over/Under tolerance Folio/Program Folio/Program Over/Under tolerance Folio/Program Fo	
Bending Bend Folio/Program Outside Dimensions Pressure, Centre Not Concentric BOM/Route Grain Over/Under tolerance Set-up Cracks Broken/Damage/Defect Hardware Part Incorrect Tempera Crimp/Kink/Ripple/Wave Burrs Inspection Incomplete/Unqualified Part Lost/Missing Weld Cuffs Contamination Instructions Incomplete/Unclear Part Moved Wrong St Crushing Countersink Misaligned/off center Positioned Wrong	
Centre Not Concentric BOM/Route Grain Over/Under tolerance Set-up Cracks Broken/Damage/Defect Hardware Part Incorrect Tempera Crimp/Kink/Ripple/Wave Burrs Inspection Incomplete/Unqualified Part Lost/Missing Weld Cuffs Contamination Instructions Incomplete/Unclear Part Moved Wrong St Crushing Countersink Misaligned/off center Positioned Wrong	
Cracks Broken/Damage/Defect Hardware Part Incorrect Tempera Crimp/Kink/Ripple/Wave Burrs Inspection Incomplete/Unqualified Part Lost/Missing Weld Cuffs Contamination Instructions Incomplete/Unclear Part Moved Wrong St Crushing Countersink Misaligned/off center Positioned Wrong	Forced '
Crimp/Kink/Ripple/Wave Burrs Inspection Incomplete/Unqualified Part Lost/Missing Weld Cuffs Contamination Instructions Incomplete/Unclear Part Moved Wrong St Crushing Countersink Misaligned/off center Positioned Wrong	
Crimp/Kink/Ripple/Wave Burrs Inspection Incomplete/Unqualified Part Lost/Missing Weld Cuffs Contamination Instructions Incomplete/Unclear Part Moved Wrong St Crushing Countersink Misaligned/off center Positioned Wrong	ture/Cure
Crushing Countersink Misaligned/off center Positioned Wrong	,
	ock Pulled
Inspection Strip in Tube Drawing Misread	
Marks/Chatter Drill Holes Off-set	
Turning Sequence Finish Out of Calibration	
Wave/Twist in Tube Fit/Function Out of Sequence	_

Work Order ID 114277 *114277* March-04-14 3:00:06 PM Item ID: D3391-023 Accept *N900040100* Setup Start **Revision ID:** Item Name: Mid Tube Assembly *1* Start Date: 07/03/2014 Start Qty: 1.00 **Cust Item ID: Reg'd Oty:** 1.00 **Required Date:** 07/03/2014 *1* **Customer:** Reference: Run Start Tooling: Process Plan: _____ Date: ____ Date: **Approvals:** Stop Date: _____ OC: SPC (Y/N): Date: Tool ID Reject Sequence ID/ Operation Tool # Plan Accept Reject Set Up/ **Work Center ID** Code Number Stamp **Description Run Hours** Qty Qty 185 Pressure Wash per QSI005 4.3 0.00 VG 46-26 *125* HandFinish 0.00 Memo Hand Finishing AND REALODINE AS PER PAR09-043 White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum 190 0.00

100 Powdercoat

Powder Coating

200

200

QC Quality Control

QC3- Inspect Part Finish

Memo

START TIME:

FINISH TIME:

0.00

0.00

0.00

1 \$ 14-6-26. gs.

Insp.

Page 6

DQA:		Date:											`	TRAAC
QA Closed:		Date:			WORK ORDER NON-	-CC	ONFO	RMANCE / UF	PDATE	\٨/،	ork Order u	ndate only [\neg	AEROSPACE
Q/ Closed.	-	Date.					<u> </u>							
Work Orde	r:				DISPOSITION				AGAINST	DE	PARTMENT	/PROCESS		
					Rework			Skid-tube	Crosstube]	Water Jet	\neg	Engineering
Part N	o				Scrap			Machining	Small Fab		Pro	d. Eng. Coor.	\exists	Quality
					Use-as-is		Thern	noforming	Finishing		Rec/Sto	re/Packaging		Other
NCR N	0				Suspected Unapproved			Large Fab	Composite]	Supplier		
Root	1]	Desci	ription of work order update		L Initial	Acti	ion		Sign &		T	,
Cause	Date	Step	Qty		or non-conformance	!	ief Eng				Date	Verification		QC Inspector
Design					<u>,</u>									
Doc/Data												٠		:
Equip/Tooling								•					İ	
Handling/Pre								-						i
Material														*
Operator						İ								
Offset/Setup														
Process														
Supplier					•								1	
Training														
Transport														
Unapproved														
						FA	ULT CAT	regory				-		*
Landin	g Gear			_	General						,	_		:
1_	Bending			_	Bend		Folio/F	rogram			Outside Dim	ensions	_	ressure/Forced
1_	Centre No	ot Concer	ntric		BOM/Route		Grain				Over/Under	tolerance	s	et-up
.	Cracks				Broken/Damage/Defect		Hardwa	re			Part Incorred	:i	╝	emperature/Cure
_	Crimp/Kir	k/Ripple	/Wave		Burrs		Inspecti	on Incomplete/Un	qualified	L	Part Lost/Mi	ssing	_\^	/eld
_	Cuffs				Contamination		4	ions Incomplete/U	nclear		Part Moved		\v	Vrong Stock Pulled
<u> </u>	Crushing				Countersink		-1	ned/off center			Positioned V		_	
	Heat Trea				Cut Too Short		Mislabe	eled			Power Loss/	Surge	c	ther
<u> </u>	Inspection	•	Tube		Drawing		Misread							
	Marks/Ch	atter			Drill Holes		Off-set							
	Turning S				Finish		Out of (Calibration						
į	Wave/Tw	ist in Tub	oe		Fit/Function	l '	Out of S	Sequence						

"Work Ord		4277		*112	1977*			Page
Item ID: Revision ID: Item Name:	D3391-023 Mid Tube As	Sembly		Accept	*N900040	1100*		art *NS1*
Start Date: Required Date Reference:	07/03/2014	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item ID: Customer:		Si	top *NS2*
Approvals:	Process Pla	an:	Date:	Tooling: SPC (Y/N):	Date:			art *NR1* *NR2*
Sequence ID/ Work Center I	D	Operation Description		Set Up/ Run Hours 0.00	Tool ID Tool	Flan Acce Code Qty	ept Reject Qty	
220 HandFinish Hand Finishing			03591-1 spacers using DT9. erts as per Dwg	0.00 416 starting from 0.500"	side NA	lx	- J. M.	14/06/57
240 *240* QC		QC5- Inspect part comple	. 0	0.00 DAS 9.89	76			
250 *250* Packaging		Identify as per dwg & Sto	ock Location: 19 (1)	0.00	DAS 06 9.89	JUN 2 6 Jun 7 6 :	964f ·	

Packaging

DQA:		_ Date:										TQAC
QA Closed:		Date:			WORK ORDER NON	-C(ONFO	RMANCE / UPDAT		ork Order up	odate only	AEROSPACE
Work Orde	er:				DISPOSITION			AG	AINST DE	PARTMENT,	/PROCESS	
Part N	0	, , , , , , , , , , , , , , , , , , , ,			Rework Scrap Use-as-is Suspected Unapproved			Machining Sma	sstube all Fab nishing posite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
D t			1	0		1 .		<u> </u>		c: 0		
Root	Date	Ston	0+1	Desci	ription of work order update or non-conformance	1	Initial	Action		Sign &	\/==:E:==4:==	061
Cause	Date	Step	Qty		or non-conformance	<u>Cn</u>	nief Eng	Description		Date	Verification	QC Inspector
Design Doc/Data	_											
Equip/Tooling												
Handling/Pre						:			·			
Material												
Operator												
Offset/Setup	-											
Process										:		
Supplier												:
Training												
Transport												
Unapproved												
			-l			FA	ULT CAT	EGORY				.1
Landin	g Gear				General		,					
	Bending				Bend		Folio/P	rogram		Outside Dim	ensions	Pressure/Forced
	Centre N	lot Conce	ntric		BOM/Route		Grain			Over/Under	tolerance	Set-up
	Cracks				Broken/Damage/Defect		Hardwa	re		Part Incorred	:i	Temperature/Cure
	Crimp/K	ink/Ripple	/Wave		Burrs		Inspecti	on Incomplete/Unqualifie	ed 🔲	Part Lost/Mi	ssing	Weld
	Cuffs				Contamination		Instruct	ions Incomplete/Unclear		Part Moved		Wrong Stock Pulled
	Crushing	3			Countersink		Misalig	ned/off center		Positioned W	/rong	
	Heat Tre	at			Cut Too Short		Mislabe	led		Power Loss/	Surge	Other
	Inspection	on Strip in	Tube	<u> </u>	Drawing		Misread	1				
	Marks/C	hatter			Drill Holes		Off-set					
	Turning	Sequence			Finish		Out of (Calibration				
	Wave/T	wist in Tub	oe		Fit/Function		Out of 9	Sequence				

Work Ord March-04-14 3		4277		*112	1277*						111-200	Page	8
Item ID: Revision ID: Item Name:	D3391-023 Mid Tube Ass	sembly		Accept	*N900	<u>040</u>	100)*	Setup S	Start Stop		S1* S2*	
Start Date: Required Date Reference:	07/03/2014 : 07/03/2014	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item l Customer:	D:							
Approvals:		an:	Date:	Tooling: SPC (Y/N):		ate:		J		Start Stop		R1* R2*	
Sequence ID/ Work Center I	D	Operation Description QC21- Final Inspection	Work Order Release	Set Up/ Run Hours 0.00	Tool ID	Tool #	Plan Code	Accept Qty	Otv	N	Reject Number	Insp. Stamp	
260 QC Quality Control		Мето		0.00				_Mus	5 14	<u>-</u> 04	2-26 5-14	2 <u>-</u> 06-Z	- &

DQA:		`	Date:					;	1				**	AA PT
						WORK ORDER NON-	-CC	ONFO	RMANCE / UP			_	_	AEROSPACE
QA Closed:			Date:								ork Order up	date only		
Work Orde	or.					DISPOSITION				AGAINST D	EPARTMENT,	/PROCESS		
Work Orac					_	Rework			Skid-tube	Crosstube	1	Water Jet	\neg	Engineering
Part N	No.					Scrap			Machining	Small Fab	- Pro	d. Eng. Coor.	\dashv	Quality
	_				_	Use-as-is			noforming	Finishing		re/Packaging		Other
NCR N	No.					Suspected Unapproved			Large Fab	Composite	1	Supplier	٦	
Root					Desci	ription of work order update	١	nitial	Acti	on	Sign &			
Cause		Date	Step	Qty		or non-conformance	Ch	ief Eng	Descri	ption	Date	Verification		QC Inspector
Design														
Doc/Data										,				
Equip/Tooling	Щ													
Handling/Pre		•												
Material	Ш											•		
Operator	Ш													
Offset/Setup													ı	·
Process												÷		
Supplier	Щ													
Training	Ш												ı	
Transport ·	Щ													
Unapproved														
							FAI	ULT CAT	regory					
Landir 1						General		l		_	٦	Г	一.	,
-	_	ending				Bend		1	Program	<u> </u>	Outside Dim	⊢		Pressure/Forced
	\vdash		t Concen	itric	-	BOM/Route		Grain		-	Over/Under	⊢	-	Set-up
}	\vdash	iracks	d. /Dimmle	/\\/==		Broken/Damage/Defect		Hardwa			Part Incorre	<u>-</u>		Temperature/Cure
	—	•	ık/Ripple,	/ vv ave	\vdash	Burrs	_	1	ion Incomplete/Unc	· -	Part Lost/Mi	ssing	-	Weld
	\vdash	uffs Stucking			_	Contamination Countersink		ł	ions Incomplete/U	nciear	Part Moved	L	י'∟	Wrong Stock Pulled
	${f H}$	irushing Ieat Trea	+			Cut Too Short	_	Mislabe	gned/off center	<u> </u>	Positioned V Power Loss/		٦,	Other
			ւ ո Strip in ՝	Tube		Drawing Drawing	_	Misread			Trower ross/	ourge [10	Julei
	_	/larks/Ch	· .	Tube	-	Drill Holes		Off-set	ı					
	\vdash	urning Se			-	Finish		Į.	Calibration					
}	_	_	ist in Tub	Δ.	-	Fit/Function		1	Sequence					
	LV	vave/ IW	131 111 140	C		r iy i unction	L	Jour of 3	pequence					

Picklise Print

March-04-14 3:00:05 PM

Work Order ID: 114277

Parent Item Name:

114277

D3391-023

Parent Item:

D3391-023

Mid Tube Assembly

Start Date: 07/03/2014

Required Date: 07/03/2014

Page 1

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP A05.10.20New Issue KJ/EC EC

IPP B06.02.10ECN773 dwg rev.D IPP C 07.03.20

rev F dwg re-format

IPP D 07.03.28 IPP E 07.10.31 ecn 1053P

EC EC

EC

IPP Rev:F ECN 1056 07-11-13 DD verified by: EC IPP Rev:G 08-09-08 new process (ecn 08-510) DD verified by:EC

IPP Rev:H 08-09-10 revH as per dwg DD verified by:EC

Manufactured

Manufactured

No

IPP Rev: I 08-11-13 Removed steps per w/o, QC KJ verified by: ec Rev:J add in seq 140 expire date &b# sikaflex DD 10.02.17 verified by:EC

Qty per Kit Total Component Item ID/ Replacement Mfg/ Last Bin Primary Route Unit of Qty on Qty Date Status Item Name Item Location Location Seq ID Measure Hand Item ID Purch Qty Issued Issued D2500-1-100 No 85.0000 1 Manufactured 100 Each 1 AF14-06-29 ** *D2500-1-100* Skidtube Extrusion

		Location	Loc	: Oty	Loc Code		
		HALL		85			
		82373		24			
		§60 65		61			
d	No		140	Each	9.0000	1	1
		•			7	k*	

D3389-1

Web

D3389-1

Location Loc Oty Loc Code LG 9 160 176.0000 Each **

D3681-1

Spacer

D3681+1

Location Loc Oty Loc Code LG001 176 40 108647 109109 136

Doc 146-26
B114884 x5

DQA:		Date:												TRACC"	
QA Closed:		Date:			WORK ORDER NON-	AEROSPACE									
					DISPOSITION	DISPOSITION AGAINST DEPARTMENT/PROCESS									
Work Orde	r:				DISPOSITION		AGAINST	DE	PAKTIVIENT	/PROCESS					
	· · · · · · · · · · · · · · · · · · ·				Rework			Skid-tube		Water Jet 📗			Engineering		
Part N	0				Scrap			Machining	Small Fab	_	Prod. Eng. Coor.			Quality	
					Use-as-is		Therr	noforming	Finishing		Rec/Sto	re/Packaging	_	Other	
NCR N	0				Suspected Unapproved			Large Fab	Composite			Supplier	_		
Root				Descr	ription of work order update	Initial		Action		Sign &		Т	•		
Cause	Date	Step	Qty		or non-conformance		ief Eng				Date	Verification		QC Inspector	
Design		·							1 1 1					1	
Doc/Data															
Equip/Tooling															
Handling/Pre															
Material														:	
Operator															
Offset/Setup															
Process															
Supplier															
Fraining															
Transport											i i				
Unapproved															
						FAL	ULT CA	TEGORY							
Landin	g Gear				General		1 .		!		1	_			
	Bending				Bend	Folio/Program				}—		mensions		ressure/Forced	
-	Centre No	ot Concei	ntric		BOM/Route		Grain				Over/Under	<u> </u>	_	et-up	
-	Cracks				· • • • • • • • • • • • • • • • • • • •		Hardwa				Part Incorre	<u> </u>	_	Temperature/Cure	
}-	Crimp/Kink/Ripple/Wave				Burrs		1	ion Incomplete/Und	-		Part Lost/Mi	ssing	┥	Weld	
-	Cuffs				Contamination		4	ions Incomplete/Ui	nclear		Part Moved	L	Ш۷	Vrong Stock Pulled	
-	Crushing				Countersink		•	ned/off center			Positioned V	_	\neg_{\sim})	
-	Heat Trea		Tuba		Cut Too Short	_	Mislabe				Power Loss/	Surge [IC	Other	
-	Marks/Ch	•	rupe	\vdash	Drawing Drill Holes		Misread Off-set				e				
	Turning Se				Finish		1	Calibration							
}	Wave/Tw				Fit/Function	\vdash	1	Calibration Sequence							
	wave/ IW	ist III TUL	76		FIGEUNCHON	l	Lour or s	equence							

March-04-14 3:00:05 PM

Work Order ID: 114277

114277

Parent Item:

D3391-023

D3391-023

Parent Item Name: Mid Tube Assembly

Start Date: 07/03/2014

Required Date: 07/03/2014

Start Oty: 1.00

**

**

Required Oty: 1.00

D3591-1

Manufactured

90.0000

2

Location	<u>1</u>		Loc Oty	Loc Code		
FG			10			
	92873		10			
FP001			80			
	100699		5			
	107918		38			
	109107		37			
		230	Each	1,176.000	20	20

Each

ALS4-1032-130

AELS4-1032-130 Purchased

No

Each 1,176.000

14/06/26

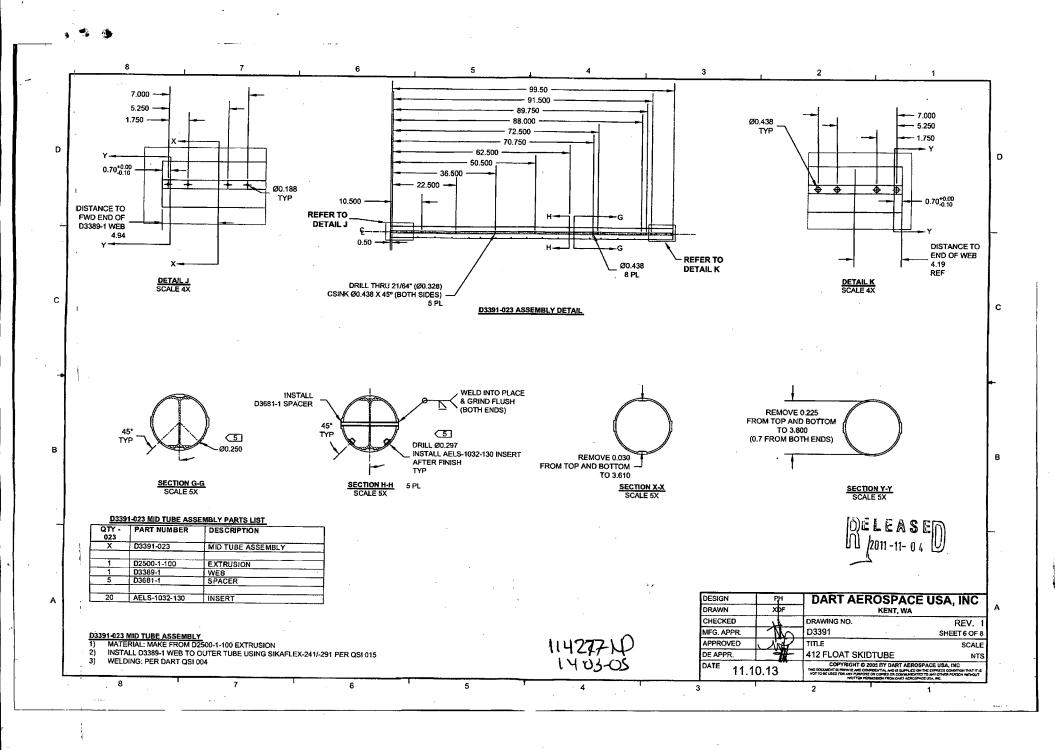
AI S4-1032-130

Rivnut

<u>Location</u>	Loc Qty	Loc Code	
ST279	1119	11128649	<u> </u>
M12817	9 158	h. c(C D @ - 1	
M12821	1 961		
st510	57		
M12610	9 57		-

D4095.045 / B112308 (IX) WearpTate assy centen AN3C-4A | M(128879 (NX) bolts NAS1149(0332R / M129499(12x) washons

DQA:		_ Date:				DART									
QA Closed:		Date:			WORK ORDER NON	AEROSPACE									
<u> </u>					DISPOSITION					ork Order u					
Work Orde	r:				DISPOSITION			AGAII	וטוצא	PARTMENT	/PROCESS				
					Rework			Skid-tube Crosst	ube	Water Jet			Engineering		
Part N	o				Scrap			Machining Small	Fab 🔃	Prod. Eng. Coor.			Quality		
					Use-as-is		Therr	noforming Finish	ning	Rec/Store/Packaging			Other		
NCR N	0				Suspected Unapproved Large Fab Composi				site	e Supplier Supplier					
Root	Root Des			Desci	ription of work order update	ı	nitial	Action		Sign &	-	T	 		
Cause	Date	Step	Qty	or non-conformance		Ch	ief Eng	Description		Date Verification			QC Inspector		
Design															
Doc/Data					ĺ										
Equip/Tooling															
Handling/Pre				1											
Material															
Operator	_														
Offset/Setup		1													
Process															
Supplier															
Training															
Transport															
Unapproved															
						FAI	ULT CAT	TEGORY			•				
Landin					General		1 .		-	,	-	_			
	Bending			<u> </u>	Bend		1	rogram	<u> </u>	-1	⊢		Pressure/Forced		
-	Centre N	ot Concei	ntric		BOM/Route	_	1	Grain		Over/Under	-	—	Set-up		
-	Cracks				Broken/Damage/Defect		Hardwa			Part Incorre		_	Temperature/Cure		
Crimp/Kink/Ripple/Wave					Burrs	<u> </u>	{ ·	ion Incomplete/Unqualified	<u> </u>	Part Lost/Mi	ssing		Weld		
	Cuffs			-	Contamination	<u> </u>	4	ions Incomplete/Unclear	_	Part Moved	L	\	Wrong Stock Pulled		
Crushing					Countersink	<u> </u>	•	ned/off center	_	Positioned V		_			
Heat Treat					Cut Too Short		Mislabe			Power Loss/Surge			Other		
1	Inspectio	•	Tube	<u> </u>	Drawing	\vdash	Misread								
	Marks/Cl			<u> </u>	Drill Holes	_	Off-set								
-	Turning S	•			Finish		4	Calibration							
f	Wave/Tw	ist in Tut/	ne ne	- 1	Fit/Function	1	IOut of 9	Sequence .							



DQA:	(j.m.)	_ Date:			£71 +		1								או ואַ אר		
	#1.7 *				WORK ORDER NON-CONFORMANCE / UPDATE										AEROSPACE		
QA Closed: Date:										W		•					
and the second s					DISPOSITION			. 4	Ce CT 1	AGAINST	ΓDE	PARTMENT	PROCESS				
Work Orde	er:			1				• •	a			1	7	% —			
, v Dansk N				.]	•	Rework			Skid-tube	Crosstube	-	Data	Water Jet	-1	Engineering		
Part N	10				Scrap			ĺ	Machining	Small Fab	-	1	d. Eng. Coor.	_	iality		
NCR N	io.					Jse-as-is		inern	moforming Finishing Large Fab Composite			Rec/Stor	e/Packaging Supplier	∤	ther		
WCK IN			•	-	Suspected Unapproved				Large Fab	Composite	-ــــــا ⁻		20ppilei [_				
Root				Descrip	cription of work order update		Initial		Ac	Action		Sign &					
Cause	Date	Step	Qty	C	or non-conform	non-conformance		ief Eng Description		ription		Date Verification		QC In	spector		
Design						<i>-</i> : •					•						
Doc/Data																	
Equip/Tooling	* *	1:				*						,		1	Hig A		
Handling/Pre							ļ ·						•				
Material																	
Operator	_						ŀ								,		
Offset/Setup	_																
Process																	
Supplier																	
Training													¥ ettoria		,		
Transport			1			•			*								
Unapproved		<u>· l </u>	<u> </u>	<u> </u>			<u> </u>				*	,		*			
	TA4 -						FAL	JLT CAT	EGORY					•			
Landir 1	ng Gear	* •		·	General						_	1	. –	¬₋ .			
	Bending			-	Bend			Folio/Program			Outside Dimensions			Pressure/Forced			
1 S		Not Conce	ntric		BOM/Route			Grain			_	Over/Under		Set-up			
ije i	Cracks			_	roken/Damage,	Defect	H	Hardware				Part Incorred	<u> </u>	Temperature/Cure			
8.		ink/Ripple	e/Wave		Burrs				on Incomplete/U		<u> </u>	Part Lost/Mi	ssing	Weld			
	Cuffs	a g		-	Contamination		Н	l	ions Incomplete/		\vdash	Part Moved Wrong Stock Pulled					
	Crushing		*	_	ountersink			_	ned/off center	** 	\vdash	Positioned V Power Loss/		,			
	Heat Tre				ut Too Short		-	⊣ — :					Surge	Other			
		on Strip in	1 Tube		rawing		-	Misread	.								
	Marks/C			—	orill Holes '		<u> </u>	Off-set					**		:		
		Sequence			inish				Calibration								
· • & 3	₹ IWave/Tr	wist in Tul	I IF	it/Function		1	IOut of 9	equence					•				